

LISTING OF CLAIMS

Claims:

1. (original) An information extraction system comprises a server and a client, connected via a communication network,

wherein said server provides a data file for a client to browse; and

wherein said client includes

browsing means for displaying the contents of said data file that is received from said server via said communication network,

operation detection means for detecting a predetermined specific operation based on a user's operation when said user reads said contents of said data file displayed by said browsing means, and

means for extracting information that is displayed at a location whereat said specific operation that is detected by said operation detection means is performed on a display screen of said browsing means.

2. (original) An information extraction system comprising:

a web server for storing web contents; and

a client for receiving said web contents from said web server, via a communication network, and for displaying said web contents, said client including an operating event detection function for detecting, as a manipulation event, an operation performed by a user on a display screen of said web contents,

wherein a program package, which is written in a function expansion program language for expanding the functions available to said client, is embedded in said web contents stored in said web server, said program package permitting said client to perform

a process for employing said operating event detection function of a client to detect an operating event,

a process for analyzing a string of operating events that are detected to extract a predetermined, specific operation, and

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a process for extracting from said web contents target information for said specific operation, and for returning said target information to said web server.

3. (original) An information extraction system comprising:

a web server, for storing web contents; and

a client, for receiving said web contents from said web server, via a communication network, and for displaying said web contents,

wherein said client includes an operating event detection function for detecting, as a manipulation event, an operation performed by a user on a display screen of said web contents,

wherein said web server embeds, in said web contents, a program package, which is written in a function expansion program language, that expands the functions available to said client and that permits said client to perform

a process for employing said operating event detection function belonging to said client to detect an operating event,

a process for analyzing a string of operating events that are detected to extract a predetermined specific operation and

a process for extracting target information for said specific operation from said web contents and for returning said target information to said web server, and

wherein said web server transmits said program package to said client.

4. (original) An information extraction system comprising:

a web server, for storing web contents;

a proxy server, for receiving web contents from said web server via a communication network and for performing an additional process; and

a client, for displaying said web contents for which said proxy server has performed said additional process,

wherein said client includes an operating event detection function for detecting, as a manipulation event, an operation performed by a user on a display screen of said web contents,

wherein said proxy server embeds, in said web contents received from said web server, a program package, which is written in a function expansion program language, for expanding the functions available to said client, and that permits said client to perform

a process for employing said operating event detection function belonging to said client to detect an operating event,

a process for analyzing a string of operating events that are detected to extract a predetermined specific operation and

a process for extracting target information for said specific operation from said web contents, and for returning said target information to said proxy server, and

wherein said proxy server transmits said program package to said client.

5. (original) An information extraction system comprising:

a web site, for storing web contents;

an information processing apparatus that includes a web browser, for receiving said web contents from said web site, via a communication network, and for displaying said web contents; and

a portal site, for said information processing apparatus,

wherein said portal site, upon being accessed by said information processing apparatus, transmits, to said information processing apparatus, a program file that serves as a local proxy for said information processing apparatus,

wherein said web browser of said information processing apparatus includes an operating event detection function for detecting, as an operating event, an operation performed by a user on a screen on which said web contents are displayed,

wherein said local proxy, which is operated by said information processing apparatus, embeds in said web contents received from said web server a program package, which is written in a function expansion program language, for expanding the functions available with said web browser, said program package permitting said web browser to perform

a process for employing said operating event detection function belonging to a web browser to detect an operating event,

a process for analyzing a string of operating events that are detected to extract a predetermined, specific operation, and

a process for extracting target information for said specific operation from said web contents, and

wherein said web browser transmits, to said portal site, information extracted by said web browser.

6. (original) An information extraction system comprising:

a web server, for storing web contents;

a proxy server, for receiving web contents from said web server via a communication network and for performing an additional process; and

a client, for displaying said web contents for which said proxy server has performed said additional process,

wherein said client includes an operating event detection function for detecting, as a manipulation event, an operation performed by a user on a display screen of said web contents, and

wherein said proxy server includes

operating event acquisition means, for collecting operating events that are detected by said client,

operating event analyzation means, for analyzing a string of said operating events that are received from said client and for extracting a predetermined specific operation, and

information extraction means, for extracting, from said web contents, target information for said predetermined specific operation.

7. (withdrawn) An information processing apparatus comprising:

browsing means, for displaying document data;

operation detection means, for employing an input operation, performed by a user when said user browses said document data displayed by said browsing means, to detect an operation

defined as a specific operation that said user unintentionally performed to obtain interesting information; and

character string extraction means, for extracting a character string that is displayed at a location whereat said specific operation that is detected by said operation detection means is performed on a display screen of said browsing means.

8. (original) The information processing apparatus according to claim 6, wherein said character string extraction means extracts a sentence unit or a line unit that includes said character string that is displayed at said location whereat said specific operation is performed.

9. (original) An information collection apparatus that is connected to an information processing apparatus, which includes a web browser that receives web contents from a web server and displays said web contents, and which collects information concerning said information processing apparatus, comprising:

storage means, for storing a program file for embedding, in said web contents received from said web server, a program package, which is written in a function expansion program language, that expands the functions of said web browser and that permits said web browser to perform

a process for employing an operating event detection function performed by said information processing apparatus to detect an operating event,

a process for analyzing a string of operating events that are detected to extract a predetermined specific operation, and

a process for extracting target information for said specific operation from said web contents;

transmission means, for reading said program file from said storage means and for transmitting said program file to said information processing apparatus; and

information collection means, for collecting said information extracted by said information processing apparatus.

10. (original) An information collection apparatus according to claim 8, wherein said program file stored in said storage means of said information collection apparatus is prepared by a Java applet, and said program package, which is written in Java script, is embedded in said web contents.

11. (withdrawn) A character string extraction method comprising the steps of:

detecting a predetermined, specific operation based on an input operation performed by a user on a display screen on which document data are displayed; and

extracting, as a unit, a sentence or a line that includes a character string that is displayed at a location whereat said specific operation that is detected has been performed on said display screen.

12. (withdrawn) A character string extraction method comprising the steps of:

detecting, based on an input operation performed by a user on a display screen on which document data are displayed, a tracing and reading movement by which the pointer of a pointing device is moved along lines in a document that is displayed; and

extracting, as a unit, a sentence or a line that includes a character string that is displayed at a location whereat said tracing and reading operation has been performed on said display screen.

13. (withdrawn) The character string extraction method according to claim 11, wherein, at said step of extracting a character string, a sentence or a line that includes a character string belonging to a document immediately above a character string selected using said pointer is moved to another location on said display screen.

14. (withdrawn) A character string extraction method comprising the steps of:

employing an input operation performed by a user on a display screen on which document data are displayed to detect a line tracing and reading operation during which lines of a displayed document are pointed at in order, while the pointer of a pointing device is moved in a direction perpendicular to said lines; and

extracting as a unit a sentence or a line that includes a character string that is displayed at a location whereat said line tracing and reading operation has been performed on said display screen.

15. (withdrawn) A storage medium on which the input means of a computer stores a computer-readable program that permits said computer to perform:

a process for displaying the contents of document data;

an process for detecting a predetermined specific operation based on a user's operation on a display screen where said document data are displayed; and

a process for extracting a character string that is displayed at a location whereat said specific operation that is detected is performed on said display screen.

16. (withdrawn) An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing character string extraction, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 11:

17. (withdrawn) An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing character string extraction, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 14.

18. (withdrawn) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for character string extraction, said method steps comprising the steps of claim 11.

19. (withdrawn) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for character string extraction, said method steps comprising the steps of claim 12.

20. (withdrawn) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for character string extraction, said method steps comprising the steps of claim 14.

21. (withdrawn) An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing character string extraction, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 12.